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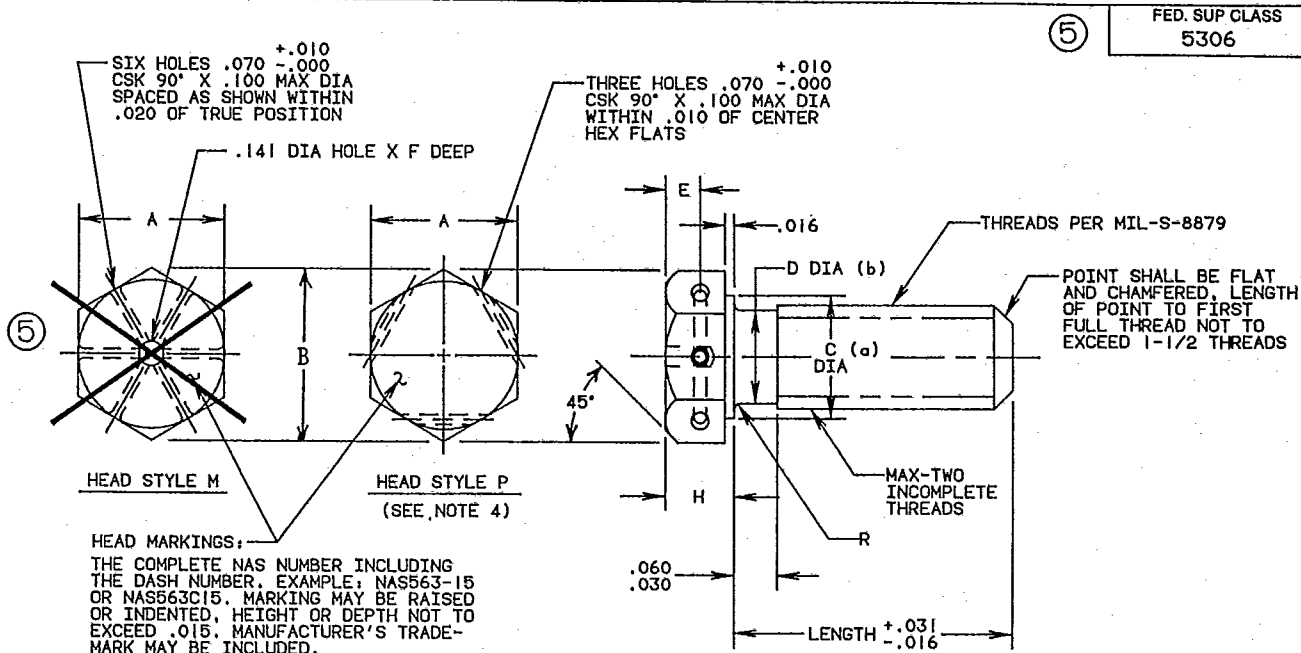
AIA/NAS NAS*563 THRU*572 90 0318743 0003560 9

NATIONAL AEROSPACE STANDARD

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AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
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WASHINGTON, D.C. 20005

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE
SAME PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS
FROM THE LAST DATE OF APPROVAL SHOWN HEREON.



⑤ HEAD STYLE M INACTIVE FOR DESIGN AFTER JULY 1, 1990. FOR DESCRIPTION OF STATUS NOTES SEE NAS380.

BASIC NO.	THREAD UNJF-3A	A +.002 / -.010	B REF	C DIA MIN (a)	D (DIA) (b)		E (c) +.010 / -.000	F STYLE M HEAD	H	R RAD	
					MAX	MIN				MIN	MAX
NAS563	.1900 - 32	.375	.438	.335	.1900	.1670	.063	.125	.188	.010	.020
NAS564	.2500 - 28	.438	.500	.398	.2500	.2243	.063	.140	.219	.010	.020
NAS565	.3125 - 24	.500	.578	.460	.3125	.2827	.063	.140	.281	.010	.020
NAS566	.3750 - 24	.562	.656	.523	.3750	.3450	.141	.187	.281	.010	.025
NAS567	.4375 - 20	.625	.719	.610	.4375	.4019	.156	.219	.328	.010	.025
NAS568	.5000 - 20	.750	.875	.710	.5000	.4643	.188	.250	.375	.015	.030
NAS569	.5625 - 18	.875	1.016	.835	.5625	.5230	.219	.281	.422	.015	.030
NAS570	.6250 - 18	1.000	1.156	.985	.6250	.5854	.234	.281	.469	.020	.040
NAS572	.7500 - 16	1.125	1.297	1.110	.7500	.7056	.281	.344	.562	.020	.045

(a) MAXIMUM "C" DIAMETER SHALL NOT EXCEED "A" DIMENSION.

(b) THE DIAMETER OF THE UNTHREADED PORTION OF THE BOLT SHALL NOT BE LESS THAN THE MINIMUM PITCH DIAMETER NOR MORE THAN THE MAXIMUM MAJOR DIAMETER OF THE THREAD AS TABULATED ABOVE.

(c) THE "E" DIMENSION FOR HEAD STYLE P IS ONE-HALF OF "H" DIMENSION

INSPECTION VALUES

SIZE	.1900-32 UNJF-3A	.2500-28 UNJF-3A	.3125-24 UNJF-3A	.3750-24 UNJF-3A	.4375-20 UNJF-3A	.5000-20 UNJF-3A	.5625-18 UNJF-3A	.6250-18 UNJF-3A	.7500-16 UNJF-3A
MINIMUM ULTIMATE TENSILE STRENGTH IN LBS.	3170	5790	9260	14000	18900	25500	32400	40900	59500

MATERIAL: ALLOY STEEL, SEE PROCUREMENT SPECIFICATION
A-286 CRES PER AMS 5737

⑤ HEAT TREAT: ALLOY STEEL - 160 TO 180 KSI PER MIL-H-6875, R C36-C40
A-286 CRES - 160 KSI UTS MIN

FINISH: ALLOY STEEL - CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2 (SEE NOTE 3)
A-286 CRES - PASSIVATE PER QQ-P-35

PROCUREMENT SPECIFICATION: PER MIL-B-6812 EXCEPT FOR TENSILE, SHEAR, HARDNESS VALUES AND PASSIVATION PROCESS. BEND TEST NOT APPLICABLE.

LIST OF CURRENT SHEETS

⑤ COMPLETELY REVISED

NO.	1	2
REV	5	4

CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE		THIRD ANGLE PROJECTION
PROCUREMENT SPECIFICATION	TITLE	CLASSIFICATION
NOTED	BOLT-FULL THREADED, 160 KSI STEEL, DRILLED HEAD	STANDARD PART
		NAS 563 THRU 572
		SHEET 1 OF 2

APPROVAL DATE MARCH 1955 REVISION ① 15 AUG. 1961 ② 15 OCT. 1964 ③ 30 AUG. 1966 ④ 30 JUNE 1972 ⑤ 13 MAR. 1990



CODE: LAST DIGIT OF BASIC NUMBER INDICATES NOMINAL DIAMETER IN .0625 INCHES (NAS563 THRU 570). DASH NUMBER INDICATES LENGTH IN .031 INCREMENTS. BOLTS ARE AVAILABLE IN .0625 LENGTH INCREMENTS ONLY. PARTS LONGER THAN SHOWN BELOW MAY BE OBTAINED BY PROJECTING ODD DASH NUMBERS.

MATERIAL AND FINISH: NO CODE AFTER BASIC NUMBERS FOR ALLOY STEEL BOLT.
CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2 (SEE NOTE 3).

ADD CODE LETTER "C" FOLLOWING BASIC NUMBER FOR A286 CRES BOLT.

EXAMPLE OF PART NUMBERS: NAS564-15 = BOLT, .2500 THREAD, .469 LENGTH, CADMIUM PLATED ALLOY STEEL.

NAS564C15 = BOLT, .2500 THREAD, .469 LENGTH, PASSIVATED A286 CRES.

- NOTES: 1. REMOVE ALL BURRS AND SHARP EDGES.
2. TOLERANCES UNLESS OTHERWISE SPECIFIED: LENGTH $\pm .010$, ANGLES $\pm 5^\circ$
3. PARTS WITH CLASS 3 PLATING MAY BE FURNISHED FROM SUPPLIERS UNTIL 1 JAN 1974. (4)
4. HEAD STYLE P IS PREFERRED. HEAD STYLE M MAY BE USED UNTIL DEPLETION OF STOCK. (4)
INACTIVE FOR DESIGN AFTER JULY 1, 1990.
FOR DESCRIPTION OF STATUS NOTES SEE NAS380.
5. DIMENSIONS IN INCHES

DASH NO.	NAS563 LENGTH	NAS564 LENGTH	NAS565 LENGTH	NAS566 LENGTH	NAS567 LENGTH	NAS568 LENGTH	NAS569 LENGTH	NAS570 LENGTH	NAS572 LENGTH
11	.344								
13	.406								
15	.469	.469							
17	.531	.531							
19	.594	.594							
21	.656	.656	.656						
23	.719	.719	.719	.719					
25	.781	.781	.781	.781	.781				
27	.844	.844	.844	.844	.844				
29	.906	.906	.906	.906	.906				
31	.969	.969	.969	.969	.969				
33	1.031	1.031	1.031	1.031	1.031	1.031			
35	1.094	1.094	1.094	1.094	1.094	1.094			
37	1.156	1.156	1.156	1.156	1.156	1.156			
39	1.219	1.219	1.219	1.219	1.219	1.219			
41	1.281	1.281	1.281	1.281	1.281	1.281	1.281		
43	1.344	1.344	1.344	1.344	1.344	1.344	1.344		
45	1.406	1.406	1.406	1.406	1.406	1.406	1.406		
47	1.469	1.469	1.469	1.469	1.469	1.469	1.469		
49	1.531	1.531	1.531	1.531	1.531	1.531	1.531	1.531	
51	1.594	1.594	1.594	1.594	1.594	1.594	1.594	1.594	
53	1.656	1.656	1.656	1.656	1.656	1.656	1.656	1.656	
55	1.719	1.719	1.719	1.719	1.719	1.719	1.719	1.719	
57	1.781	1.781	1.781	1.781	1.781	1.781	1.781	1.781	1.781
59	1.844	1.844	1.844	1.844	1.844	1.844	1.844	1.844	1.844
61	1.906	1.906	1.906	1.906	1.906	1.906	1.906	1.906	1.906
63	1.969	1.969	1.969	1.969	1.969	1.969	1.969	1.969	1.969
65	2.031	2.031	2.031	2.031	2.031	2.031	2.031	2.031	2.031
67	2.094	2.094	2.094	2.094	2.094	2.094	2.094	2.094	2.094
69	2.156	2.156	2.156	2.156	2.156	2.156	2.156	2.156	2.156
71	2.219	2.219	2.219	2.219	2.219	2.219	2.219	2.219	2.219
73	2.281	2.281	2.281	2.281	2.281	2.281	2.281	2.281	2.281
75	2.344	2.344	2.344	2.344	2.344	2.344	2.344	2.344	2.344
77	2.406	2.406	2.406	2.406	2.406	2.406	2.406	2.406	2.406
79	2.469	2.469	2.469	2.469	2.469	2.469	2.469	2.469	2.469
81	2.531	2.531	2.531	2.531	2.531	2.531	2.531	2.531	2.531
83	2.594	2.594	2.594	2.594	2.594	2.594	2.594	2.594	2.594
85	2.656	2.656	2.656	2.656	2.656	2.656	2.656	2.656	2.656
87	2.719	2.719	2.719	2.719	2.719	2.719	2.719	2.719	2.719
89	2.781	2.781	2.781	2.781	2.781	2.781	2.781	2.781	2.781
91	2.844	2.844	2.844	2.844	2.844	2.844	2.844	2.844	2.844
93	2.906	2.906	2.906	2.906	2.906	2.906	2.906	2.906	2.906
95	2.969	2.969	2.969	2.969	2.969	2.969	2.969	2.969	2.969
97	3.031	3.031	3.031	3.031	3.031	3.031	3.031	3.031	3.031
99	3.094	3.094	3.094	3.094	3.094	3.094	3.094	3.094	3.094
101	3.156	3.156	3.156	3.156	3.156	3.156	3.156	3.156	3.156
103	3.219	3.219	3.219	3.219	3.219	3.219	3.219	3.219	3.219
105	3.281	3.281	3.281	3.281	3.281	3.281	3.281	3.281	3.281
107	3.344	3.344	3.344	3.344	3.344	3.344	3.344	3.344	3.344
109	3.406	3.406	3.406	3.406	3.406	3.406	3.406	3.406	3.406

(4) COMPLETELY REVISED

NAS 563 THRU 572
SHEET 2